DOCKET NO.: 008USPHRM300

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Peter Lind, Linda S. Wood, Ronald Hiebsch, Valerie Ruff, Eleni Lindberg, Luis A. Parodi, Gabriel Vogeli

Serial No.: Not Yet Assigned

Group Art Unit: Not Yet Assigned

Filing Date: Herewith

Examiner: Not Yet Assigned

For: NOVEL G PROTEIN COUPLED RECEPTORS

BOX SEQUENCE

Assistant Commissioner for Patents Washington DC 20231

STATEMENT TO SUPPORT FILING AND SUBMISSION IN ACCORDANCE WITH 37 CFR §§ 1.821 THROUGH 1.825

\boxtimes	I hereby state, in accordance with the requirements of 37 C.F.R. §1.821(f), that the
	contents of the paper and computer readable copies of the Sequence Listing, submitted in accordance with 37 CFR §1.821(c) and (e), respectively are the same.
	I hereby state that the submission filed in accordance with 37 CFR §1.821(g) does not include new matter.
	I hereby state that the submission filed in accordance with 37 CFR §1.821(h) does not include new matter or go beyond the disclosure in the international application as filed.
	I hereby state that the amendments, made in accordance with 37 CFR §1.825(a), included in the substitute sheet(s) of the Sequence Listing are supported in the application, as filed, at pages I hereby state that the substitute sheet(s) of the Sequence Listing does (do) not include new matter.
	I hereby state that the substitute copy of the computer readable form, submitted in accordance with 37 CFR §1.825(b), is the same as the amended Sequence Listing.

DOCK	ET NO.: 008USPHRI	M300 - 2 -	PATENT
		e substitute copy of the computer FR §1.825(d), contains identical de	
Date:	12/28/2000	Gwilym J.O. Att Registration No.	well 45,449

Woodcock Washburn Kurtz Mackiewicz & Norris LLP One Liberty Place - 46th Floor Philadelphia PA 19103 Telephone: (215) 568-3100 Facsimile: (215) 568-3439

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SEQUENCE LISTING

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Gly Gln Gln Arg Arg Ser Gly Arg Lys Gly His Trp Asn Cys Pro Leu 165 170 175

Leu Tyr Cys Ser Cys Arg Leu Met Arg Gly Val Ser Ile Pro Pro Arg 180 185 190

Cys Gly Cys Met Gly Asp Ser Lys Ala Cys Pro Leu Thr Asp Ser Glu 195 200 205

Lys Ser Ser Pro Phe Pro Ala Leu Phe 210 215

<210> 20

<211> 60

<212> PRT

<213> Homo sapiens

<400> 20

Asn Phe Asn Leu Leu Pro Asp Thr Gln Glu Arg Phe Tyr Ala Ser Val 20 25 30

Ile Ile Gln Asn Leu Pro Ala Leu Asn Ser Ala Ile Asn Pro Leu Ile 35 40 45

Tyr Cys Val Phe Ser Ser Ser Ile Ser Phe Pro Cys 50 55 60

<210> 21

<211> 67

<212> PRT

<213> Homo sapiens

<400> 21

Glu Lys Gln Ala Arg Val Leu Ile Val Ile Ala Trp Ser Leu Ser Phe 1 5 10 15

Leu Phe Ser Ile Pro Thr Leu Ile Ile Phe Gly Lys Arg Thr Leu Ser 20 25 30

Asn Gly Glu Val Gln Cys Trp Ala Leu Trp Pro Asp Asp Ser Tyr Trp 35 40 45

Thr Pro Tyr Met Thr Ile Val Ala Phe Leu Val Tyr Phe Ile Pro Leu 50 55 60

Thr Ile Ile

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<213> Homo sapiens

<400> 22

Ser Gln Tyr Arg Met Leu Gly Arg Gly Thr Cys Asp Asn Val His Ser 1 5 10 15

Ile Ser Tyr Ala Arg Asn Lys Ala Leu Pro His Trp Leu Cys His Asp 20 25 30

Tyr Asp Ile Leu Gly Val Trp Gly Ala Trp Val Val Arg Ile Pro Tyr 35 40 45

Arg Ser Pro Glu Ala Trp Gly Gly Pro Val Gly Asp Ala Arg Ser Leu 50 55 60

Cys Ser Thr Leu Pro His Ala Arg Leu Ser Asn Ala Lys Lys Gln Ala 65 70 75 80

Val His Thr Val Met Gly Ile Trp Met Val Ser Phe Ile Leu Ser Ala 85 90 95

Leu Pro Ala Val Gly Trp His Asp Thr Ser Glu Arg Phe Tyr Thr His 100 105 110

Gly Cys Arg Phe Ile Val Ala Glu Ile Gly Leu Gly Phe Gly Val Cys 115 120 125

Phe Leu Leu Val Gly Gly Ser Val Ala Met Gly Val Ile Cys Thr 130 135 140

Ala Ile Ala Leu Phe Gln Thr Leu Ala Val Gln Val Gly Arg Gln Ala 145 150 155 160

Asp Arg Arg Ala Phe Thr Val Pro Thr Ile Val Val Glu Asp Ala Gln 165 170 175

Gly Lys Arg Arg Ser Ser Ile Asp Gly Ser Glu Pro Ala Lys Thr Ser 180 185 190

Leu Gln Thr Thr Gly Leu Val Thr Thr Ile Val Phe Ile Tyr Asp Cys 195 200 205

Leu Met Gly Phe Pro Val Leu Val 210 215

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<210> 23
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<211> 119

<212> PRT

<213> Homo sapiens

<400> 23

Met Ser Asp Glu Arg Arg Leu Pro Gly Ser Ala Val Gly Trp Leu Val $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Cys Gly Gly Leu Ser Leu Leu Ala Asn Ala Trp Gly Ile Leu Ser Val 20 25 30

Gly Ala Lys Gln Lys Lys Trp Lys Pro Leu Glu Phe Leu Cys Thr 35 40 45

Leu Ala Ala Thr His Met Leu Asn Val Ala Val Pro Ile Ala Thr Tyr 50 60

Ser Val Val Gln Leu Arg Arg Gln Arg Pro Asp Phe Glu Trp Asn Glu 65 70 75 80

Gly Leu Cys Lys Val Phe Val Ser Thr Phe Tyr Thr Leu Thr Leu Ala $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Thr Cys Phe Ser Val Thr Ser Leu Ser Tyr His Arg Met Trp Met Val

Cys Trp Pro Val Asn Tyr Arg 115

<210> 24

<211> 330

<212> PRT

<213> Homo sapiens

<400> 24

Gly Asn Asp Gln Ala Leu Leu Leu Cys Gly Lys Glu Thr Leu Ile 20 25 30

Pro Val Phe Leu Ile Leu Phe Ile Ala Leu Val Gly Leu Val Gly Asn 35 40 45

Gly Phe Val Leu Trp Leu Leu Gly Phe Arg Met Arg Arg Asn Ala Phe 50 60

Ser Val Tyr Val Leu Ser Leu Ala Gly Ala Asp Phe Leu Phe Leu Cys 65 70 75 80

Phe Gln Ile Ile Asn Cys Leu Val Tyr Leu Ser Asn Phe Phe Cys Ser 85 90 95

Ile Ser Ile Asn Phe Pro Ser Phe Phe Thr Thr Val Met Thr Cys Ala
100 105 110

Tyr Leu Ala Gly Leu Ser Met Leu Ser Thr Val Ser Thr Glu Arg Cys

115 120 125

Leu Ser Val Leu Trp Pro Ile Trp Tyr Arg Cys Arg Arg Pro Arg His 130 135 140

Leu Ser Ala Val Val Cys Val Leu Leu Trp Ala Leu Ser Leu Leu Leu 145 150 150 160

Ser Ile Leu Glu Gly Lys Phe Cys Gly Phe Leu Phe Ser Asp Gly Asp 165 170 175

Ser Gly Trp Cys Gln Thr Phe Asp Phe Ile Thr Ala Ala Trp Leu Ile 180 185 190

Phe Leu Phe Met Val Leu Cys Gly Ser Ser Leu Ala Leu Leu Val Arg 195 200 205

Ile Leu Cys Gly Ser Arg Gly Leu Pro Leu Thr Arg Leu Tyr Leu Thr 210 215 220

Ile Leu Leu Thr Val Leu Val Phe Leu Leu Cys Gly Leu Pro Phe Gly225230235240

Ile Gln Trp Phe Leu Ile Leu Trp Ile Trp Lys Asp Ser Asp Val Leu 245 250 255

Phe Cys His Ile His Pro Val Ser Val Val Leu Ser Ser Leu Asn Ser 260 265 270

Ser Ala Asn Pro Ile Ile Tyr Phe Phe Val Gly Ser Phe Arg Lys Gln 275 280 285

Trp Arg Leu Gln Gln Pro Ile Leu Lys Leu Ala Leu Gln Arg Ala Leu 290 295 300

Gln Asp Ile Ala Glu Val Asp His Ser Glu Gly Cys Phe Arg Gln Gly 305 310 315 320

Thr Pro Glu Met Ser Arg Ser Ser Leu Val 325 330

<210> 25

<211> 371

<212> PRT

<213> Homo sapiens

<400> 25

Met Pro Ala Asn Phe Thr Glu Gly Ser Phe Asp Ser Ser Gly Thr Gly 1 51015

Gln Thr Leu Asp Ser Ser Pro Val Ala Cys Thr Glu Thr Val Thr Phe 20 25 30

Thr Glu Val Val Glu Gly Lys Glu Trp Gly Ser Phe Tyr Tyr Ser Phe 35 40 45

Lys Thr Glu Gln Leu Ile Thr Leu Trp Val Leu Phe Val Phe Thr Ile 50 60

Val Gly Asn Ser Val Val Leu Phe Ser Thr Trp Arg Arg Lys Lys

Ser	Arg	Met	Thr	Phe 85	Phe	Val	Thr	Gln	Leu 90	Ala	Ile	Thr	Asp	Ser 95	Phe
Thr	Gly	Leu	Val 100	Asn	Ile	Leu	Thr	Asp 105	Ile	Ile	Trp	Arg	Phe 110	Thr	Gly
Asp	Phe	Thr 115	Ala	Pro	Asp	Leu	Val 120	Cys	Arg	Val	Val	Arg 125	Tyr	Leu	Gln
Val	Val 130	Leu	Leu	Tyr	Ala	Ser 135	Thr	Tyr	Val	Leu	Val 140	Ser	Leu	Ser	Ile
Asp 145	Arg	Tyr	His	Ala	Ile 150	Val	Tyr	Pro	Met	Lys 155	Phe	Leu	Gln	Gly	Glu 160
Lys	Gln	Ala	Arg	Val 165	Leu	Ile	Val	Ile	Ala 170	Trp	Ser	Leu	Ser	Phe 175	Leu
Phe	Ser	Ile	Pro 180	Thr	Leu	Ile	Ile	Phe 185	Gly	Lys	Arg	Thr	Leu 190	Ser	Asn
Gly	Glu	Val 195	Gln	Cys	Trp	Ala	Leu 200	Trp	Pro	Gly	Asp	Ser 205	Tyr	Trp	Thr
Pro	Tyr 210	Met	Thr	Ile	Val	Ala 215	Phe	Leu	Val	Tyr	Phe 220	Ile	Pro	Leu	Thr
Ile 225	Ile	Ser	Ile	Met	Tyr 230	Gly	Ile	Val	Ile	Arg 235	Thr	Ile	Trp	Ile	Lys 240
Ser	Lys	Thr	Tyr	Glu 245	Thr	Val	Ile	Ser	Asn 250	Cys	Ser	Asp	Gly	Lys 255	Leu
Cys	Ser	Ser	Tyr 260	Asn	Arg	Gly	Leu	Ile 265	Ser	Lys	Ala	Lys	Ile 270	Lys	Ala
Ile	Lys	Tyr 275	Ser	Ile	Ile	Ile	Ile 280		Ala	Phe	Ile	Cys 285	Cys	Trp	Ser
Pro	Tyr 290	Phe	Leu	Phe	Asp	Ile 295	Leu	Asp	Asn	Phe	Asn 300	Leu	Leu	Pro	Asp
Thr 305	Gln	Glu	Arg	Phe	Tyr 310	Ala	Ser	Val	Ile	Ile 315		Asn	Leu	Pro	Ala 320
Leu	Asn	Ser	Ala	Ile 325	Asn	Pro	Pro	Ile	Tyr 330		Val	Phe	Ser	Ser 335	Ser
Ile	Ser	Phe	Pro 340	Суѕ	Arg	Glu	Gln	Arg 345		Gln	Asp	Ser	Arg 350	Met	Thr
Phe	Arg	Glu 355	Arg	Thr	Glu	Arg	His 360		Met	Gln	Ile	Leu 365		Lys	Pro
Glu	Phe 370	Ile													

<210> 26 <211> 393

<212> .PRT

<213> Homo sapiens

<400> 26

Met Glu Thr Thr Met Gly Phe Met Asp Asp Asn Ala Thr Asn Thr Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Thr Ser Phe Leu Ser Val Leu Asn Pro His Gly Ala His Ala Thr Ser 20 25 30

Phe Pro Phe Asn Phe Ser Tyr Ser Asp Tyr Asp Met Pro Leu Asp Glu 35 40 45

Asp Glu Asp Val Thr Asn Ser Arg Thr Phe Phe Ala Ala Lys Ile Val 50 55 60

Ile Gly Met Ala Leu Val Gly Ile Met Leu Val Cys Gly Ile Gly Asn 65 70 75 80

Phe Ile Phe Ile Ala Ala Leu Val Arg Tyr Lys Leu Arg Asn Leu 85 90 95

Thr Asn Leu Leu Ile Ala Asn Leu Ala Ile Ser Asp Phe Leu Val Ala 100 105 110

Ile Val Cys Cys Pro Phe Glu Met Asp Tyr Tyr Val Val Arg Gln Leu 115 120 125

Ser Trp Glu His Gly His Val Leu Cys Thr Ser Val Asn Tyr Leu Arg 130 135 140

Thr Val Ser Leu Tyr Val Ser Thr Asn Ala Leu Leu Ala Ile Ala Ile 145 150 155 160

Asp Arg Tyr Leu Ala Ile Val His Pro Leu Arg Pro Arg Met Lys Cys 165 170 175

Gln Thr Ala Thr Gly Leu Ile Ala Leu Val Trp Thr Val Ser Ile Leu 180 185 190

Ile Ala Ile Pro Ser Ala Tyr Phe Thr Thr Glu Thr Val Leu Val Ile 195 200 205

Val Lys Ser Gln Glu Lys Ile Phe Cys Gly Gln Ile Trp Pro Val Asp 210 215 220

Gln Gln Leu Tyr Tyr Lys Ser Tyr Phe Leu Phe Ile Phe Gly Ile Glu 225 230 235 240

Phe Val Gly Pro Val Val Thr Met Thr Leu Cys Tyr Ala Arg Ile Ser 245 250 255

Arg Glu Leu Trp Phe Lys Ala Val Pro Gly Phe Gln Thr Glu Gln Ile 260 265 270

Arg Lys Arg Leu Arg Cys Arg Arg Lys Thr Val Leu Val Leu Met Cys 275 280 285

Ile Leu Thr Ala Tyr Val Leu Cys Trp Ala Pro Phe Tyr Gly Phe Thr 290 295 300

Ile Val Arg Asp Phe Phe Pro Thr Val Phe Val Lys Glu Lys His Tyr 305 310 315 320

Leu Thr Ala Phe Tyr Ile Val Glu Cys Ile Ala Met Ser Asn Ser Met $325 \hspace{1cm} 330 \hspace{1cm} 335$

Ile Asn Thr Leu Cys Phe Val Thr Val Lys Asn Asp Thr Val Lys Tyr 340 345 350

Phe Lys Lys Ile Met Leu Leu His Trp Lys Ala Ser Tyr Asn Gly Gly 355 360 365

Lys Ser Ser Ala Asp Leu Asp Leu Lys Thr Ile Gly Met Pro Ala Thr 370 375 380

Glu Glu Val Asp Cys Ile Arg Leu Lys 385 390

<210> 27

<211> 389

<212> PRT

<213> Homo sapiens

<400> 27

Met Gly Phe Met Asp Asp Asn Ala Thr Asn Thr Ser Thr Ser Phe Leu 1 5 10 15

Ser Val Leu Asn Pro His Gly Ala His Ala Thr Ser Phe Pro Phe Asn 20 25 30

Phe Ser Tyr Ser Asp Tyr Asp Met Pro Leu Asp Glu Asp Glu Asp Val 35 40 45

Thr Asn Ser Arg Thr Phe Phe Ala Ala Lys Ile Val Ile Gly Met Ala 50 60

Leu Val Gly Ile Met Leu Val Cys Gly Ile Gly Asn Phe Ile Phe Ile 65 70 75 80

Ala Ala Leu Val Arg Tyr Lys Lys Leu Arg Asn Leu Thr Asn Leu Leu 85 90 95

Ile Ala Asn Leu Ala Ile Ser Asp Phe Leu Val Ala Ile Val Cys Cys 100 105 110

Pro Phe Glu Met Asp Tyr Tyr Val Val Arg Gln Leu Ser Trp Glu His 115 120 125

Gly His Val Leu Cys Thr Ser Val Asn Tyr Leu Arg Thr Val Ser Leu 130 135 140

Tyr Val Ser Thr Asn Ala Leu Leu Ala Ile Ala Ile Asp Arg Tyr Leu 145 150 155 160

Ala Ile Val His Pro Leu Arg Pro Arg Met Lys Cys Gln Thr Ala Thr
165 170 175

Gly Leu Ile Ala Leu Val Trp Thr Val Ser Ile Leu Ile Ala Ile Pro 180 185 190

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Ser Ala Tyr Phe Thr Thr Glu Thr Val Leu Val Ile Val Lys Ser Gln
        195
                            200
Glu Lys Ile Phe Cys Gly Gln Ile Trp Pro Val Asp Gln Gln Leu Tyr
                        215
Tyr Lys Ser Tyr Phe Leu Phe Ile Phe Gly Ile Glu Phe Val Gly Pro
                    230
                                        235
Val Val Thr Met Thr Leu Cys Tyr Ala Arg Ile Ser Arg Glu Leu Trp
                                    250
Phe Lys Ala Val Pro Gly Phe Gln Thr Glu Gln Ile Arg Lys Arg Leu
                                265
            260
Arg Cys Arg Arg Lys Thr Val Leu Val Leu Met Cys Ile Leu Thr Ala
                            280
Tyr Val Leu Cys Trp Ala Pro Phe Tyr Gly Phe Thr Ile Val Arg Asp
    290
                        295
Phe Phe Pro Thr Val Phe Val Lys Glu Lys His Tyr Leu Thr Ala Phe
                    310
Tyr Ile Val Glu Cys Ile Ala Met Ser Asn Ser Met Ile Asn Thr Leu
                325
Cys Phe Val Thr Val Lys Asn Asp Thr Val Lys Tyr Phe Lys Lys Ile
                                345
Met Leu Leu His Trp Lys Ala Ser Tyr Asn Gly Gly Lys Ser Ser Ala
Asp Leu Asp Leu Lys Thr Ile Gly Met Pro Ala Thr Glu Glu Val Asp
Cys Ile Arg Leu Lys
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<213> Synthetic Substrate
<400> 28
Ala Pro Arg Thr Pro Gly Gly Arg Arg
<210> 29
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<220>

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<400> 29

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	35 cata tttgggaaga ggacactg	28
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<220 <223	> Novel Sequence	
	> 39 ctggct cttgacaatg ac	22

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tctcag	accc	tctccccaca	tctcctggtc	cctgccccca	cctggcgtac	agggaccagc	180
cccacg	gaag	gctcttgagg	ccaggtaacc	atggggaggg	gaggaatggg	gacaccttcc	240
tcctga	gtgt	cttagggaag	agaagcttag	gtcaggtggc	tgagggtgga	aatgagagag	300
gggtct	cctc	ctggagggtc	tcaccattcc	cttggtcacc	cacccaactc	tcatctcccc	360
tgatgt	gggg	aggagcaggg	ggcatggatt	cctgagcccc	agactcaact	gttgtggttt	420
acaggg	gcat	caggagagag	agcgagcaga	acacactcct	gcagcatccc	ctggcccccc	480
gcccca	tgat	ggageccaga	gaagctggac	agcacgtggg	ggccgccaac	ggcgcccagg	540
aggatg	tggc	cttcaacctc	atcatcctgt	ccctcaccga	ggggctcggc	ctcggtgggc	600
tgctgg	ggaa	tggggcagtc	ctctggctgc	tcagctccaa	tgtctacaga	aaccccttcg	660
ccatct	acct	cctggacgtg	gcctgcgcgg	atctcatctt	ccttggctgc	cacatggtgg	720
ccatcg	tccc	cgacttgctg	caaggccggc	tggacttccc	gggcttcgtg	cagaccagcc	780
tggcaa	cạct	gcgcttcttc	tgctacatcg	tgggcctgag	teteetggeg	gccgtcagcg	840
tggagc	agtg	catggaagaa	ctcttcccag	cctggtactc	gtgccgccgc	ccacgccacc	900
tgacca	cctg	tgtgtgcgcc	ctcacctggg	ccctctgcct	gctgctgcac	ctgctgctca	960
gcggcg	cctg	cacccagttc	ttcggggagc	ccagccgcca	cttgtgccgg	acgctgtggc	1020
tggtgg	cagc	ggtgctgctg	gctctgctgt	gttgcaccat	gtgtggggcc	agccttatgc	1080
tgctgc	tgcg	ggtggagcga	ggcccccagc	ggcccccacc	ccggggcttc	cctgggctca	1140
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cccgga	âcct	gctctggtac	atcccccact	acttctacca	cttcagcttc	ctcatggccg	1260
caataa	~ a+ ~	~~~~~~~~~	agast ast at		~~~~~	~~~~~~~	1220

ggctgcccct	ccggctggtc	ctccagcgag	cgctgggaga	cgaggctgag	ctgggggccg	1380
tcagggagac	ctcccgccgg	ggcctggtgg	acatagcagc	ctgagccctg	gggcccccga	1440
ccccagctgc	agcccccgtg	aggcaagagg	gtgacgtggg	gaaggtggtg	gggtcagagg	1500
ctggggccag	ccggacctgg	aggaggcctt	ggtgggtgac	ccggtcatgt	gctgtcaaag	1560
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<211> 530

<212> PRT

<213> Homo sapiens

<400> 42

Val Ser Arg Asp Gly Ala Ile Ala Leu Pro Gly Ala Thr Glu Pro Asp 1 5 10 15

Ser Ile Ser Lys Lys Lys Arg Pro Phe Gly Ser Arg His His Gln Gln 20 25 30

Gly Ala Pro Trp Val Ser Asp Pro Leu Pro Thr Ser Pro Gly Pro Cys 35 40 45

Pro His Leu Ala Tyr Arg Asp Gln Pro His Gly Arg Leu Leu Arg Pro 50 55 60

Gly Asn His Gly Glu Gly Arg Asn Gly Asp Thr Phe Leu Leu Ser Val 65 70 75 80

Leu Gly Lys Arg Ser Leu Gly Gln Val Ala Glu Gly Gly Asn Glu Arg 85 90 95

Gly Val Ser Ser Trp Arg Val Ser Pro Phe Pro Trp Ser Pro Thr Gln
100 105 110

Leu Ser Ser Pro Leu Met Trp Gly Gly Ala Gly Gly Met Asp Ser Ala 115 120 125

Pro Asp Ser Thr Val Val Val Tyr Arg Gly Ile Arg Arg Glu Ser Glu 130 135 140

Gln Asn Thr Leu Leu Gln His Pro Leu Ala Pro Arg Pro Met Met Glu 145 150 155 160

Pro Arg Glu Ala Gly Gln His Val Gly Ala Ala Asn Gly Ala Gln Glu 165 170 175

Asp Val Ala Phe Asn Leu Ile Ile Leu Ser Leu Thr Glu Gly Leu Gly 180 185 190

Leu Gly Gly Leu Leu Gly Asn Gly Ala Val Leu Trp Leu Leu Ser Ser 195 200 205

Asn Val Tyr Arg Asn Pro Phe Ala Ile Tyr Leu Leu Asp Val Ala Cys 210 215 220

Ala Asp Leu Ile Phe Leu Gly Cys His Met Val Ala Ile Val Pro Asp

...

225 230 235 240

Leu Leu Gln Gly Arg Leu Asp Phe Pro Gly Phe Val Gln Thr Ser Leu 245 250 255

Ala Thr Leu Arg Phe Cys Tyr Ile Val Gly Leu Ser Leu Leu Ala Ala 260 265 270

Val Ser Val Glu Gln Cys Leu Ala Ala Leu Phe Pro Ala Trp Tyr Ser 275 280 285

Cys Arg Arg Pro Arg His Leu Thr Thr Cys Val Cys Ala Leu Thr Trp 290 295 300

Ala Leu Cys Leu Leu Leu His Leu Leu Leu Ser Gly Ala Cys Thr Gln 305 310 315 320

Phe Phe Gly Glu Pro Ser Arg His Leu Cys Arg Thr Leu Trp Leu Val 325 330 335

Ala Ala Val Leu Leu Ala Leu Leu Cys Cys Thr Met Cys Gly Ala Ser 340 345 350

Leu Met Leu Leu Arg Val Glu Arg Gly Pro Gln Arg Pro Pro Pro 355 360 365

Arg Gly Phe Pro Gly Leu Ile Leu Leu Thr Val Leu Leu Phe Leu Phe . 370 375 380

Cys Gly Leu Pro Phe Gly Ile Tyr Trp Leu Ser Arg Asn Leu Leu Trp 385 390 395 400

Tyr Ile Pro His Tyr Phe Tyr His Phe Ser Phe Leu Met Ala Ala Val 405 410 415

His Cys Ala Ala Lys Pro Val Val Tyr Phe Cys Leu Gly Ser Ala Gln
420 425 430

Gly Arg Arg Leu Pro Leu Arg Leu Val Leu Gln Arg Ala Leu Gly Asp 435 440 445

Glu Ala Glu Leu Gly Ala Val Arg Glu Thr Ser Arg Arg Gly Leu Val 450 460

Asp Ile Ala Ala Ala Leu Gly Pro Pro Thr Pro Ala Ala Ala Pro Val 465 470 475 480

Arg Gln Glu Gly Asp Val Gly Lys Val Val Gly Ser Glu Ala Gly Ala 485 490 495

Ser Arg Thr Trp Arg Arg Pro Trp Trp Val Thr Arg Ser Cys Ala Val 500 505 510

Lys Val Val Thr Leu Gly Leu Glu His Glu Ala Pro Leu Gly Gly Ser 515 520 525

Trp Lys 530

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<212> PRT

<213> Homo sapiens

<400> 44

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Ala Gln Glu Asp Val Ala Phe Asn Leu Ile Ile Leu Ser Leu Thr Glu 20 25 30

Gly Leu Gly Leu Gly Gly Leu Leu Gly Asn Gly Ala Val Leu Trp Leu 35 40

Leu Ser Ser Asn Val Tyr Arg Asn Pro Phe Ala Ile Tyr Leu Leu Asp 50 55 60

Val Ala Cys Ala Asp Leu Ile Phe Leu Gly Cys His Met Val Ala Ile 65 70 75 80

Val Pro Asp Leu Leu Gln Gly Arg Leu Asp Phe Pro Gly Phe Val Gln 85 90 95

Thr Ser Leu Ala Thr Leu Arg Phe Cys Tyr Ile Val Gly Leu Ser Leu 100 105 110

Leu Ala Ala Val Ser Val Glu Gln Cys Leu Ala Ala Leu Phe Pro Ala 115 120 125

Trp Tyr Ser Cys Arg Arg Pro Arg His Leu Thr Thr Cys Val Cys Ala 130 135 140

Leu Thr Trp Ala Leu Cys Leu Leu Leu His Leu Leu Leu Ser Gly Ala 145 150 155 160

Cys Thr Gln Phe Phe Gly Glu Pro Ser Arg His Leu Cys Arg Thr Leu 165 170 175

Trp Leu Val Ala Ala Val Leu Leu Ala Leu Leu Cys Cys Thr Met Cys 180 185 190

Gly Ala Ser Leu Met Leu Leu Leu Arg Val Glu Arg Gly Pro Gln Arg 195 200 205

Pro Pro Pro Arg Gly Phe Pro Gly Leu Ile Leu Leu Thr Val Leu Leu 210 215 220

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Leu Leu Trp Tyr Ile Pro His Tyr Phe Tyr His Phe Ser Phe Leu Met 245 250 255

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